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specific name of *odorata* has held through the several changes that have been made regarding its generic position, though varieties of it have been described as distinct species by several authors. It is a pretty generally distributed species, ranging from Canada south to the Gulf of Mexico, and west to the Mississippi. In habits it is quite voracious and shy, preferring muddy ponds and rivers, and overflowed meadows, where it can easily hide itself. It is often found covered with a green confervoid growth, which also renders it less likely to be noticed. It has the habit of climbing trees overhanging the water, and basking in the sun, and will drop into the water on the slightest hint that it is observed.

The two insects inclosed were two species of wingless Ichneumon flies; one of them probably belongs to the genus *Pezomachus.* We have several wingless genera, and the genus Pezomachus comprises an immense number of species. Mr. E. Burgess informs us that in the pupa state the Pezomachus is winged, but that the wings drop off in transforming into the imago state. *Pezomachus* may be known from *Mutilla*, by possessing a harmless sting, which only serves as an ovipositor, and a smaller head, and by its very close resemblance to the winged Ichneumons.

W. H. G., Elmira, N. Y.—The moth you send is one of the Sphinges, *Thyreus Nessus.* It was first described and figured by Cramer, a Dutch naturalist. It is found from Canada and New Hampshire southward. The larvæ of this genus differ from most others of this family, in having a simple tubercle on the tail instead of the usual curved horn, as seen in the Potatoe-worm, *Sphinx Carolina.*

ENTOMOLOGICAL CALENDAR.

During this month the Seventeen-year Locust (*Cicada septendecim* of Linnæus) has disappeared, and only a few Harvest-flies, as the two other species we have are called, raise their shrill cry during the dog-days. But as this year has been marked by the appearance of vast swarms in the Middle States, we cannot do better than give a brief summary of its history, which we condense from Dr. Harris' work.

The Seventeen-year Locust ranges from South-eastern and Western Massachusetts to Louisiana. Of its distribution west of the Mississippi Valley, we have no accurate knowledge. In Southern Massachusetts, they appear in oak forests about the middle of June. After pairing, the female, by means of their powerful ovipositor, bores a hole obliquely to the pith, and lays therein from ten to twenty slender white eggs, which are arranged in pairs, somewhat like the grains on an ear of wheat, and implanted in the limb. She thus oviposits several times in a twig, and passes from one to another, until she has laid four or five hundred eggs. After this she soon dies. The eggs hatch in about two weeks, though some observers state that they do not hatch for from forty to over fifty days after being laid. The active grubs are provided with three pairs of legs. After leaving the egg they fall to the ground, burrow into it, seek the roots of plants whose juices they suck by means of their long beak. They sometimes attack the roots of fruit trees, such as the pear and apple. They live nearly seventeen years in the larva state, and then in the spring change to the pupa, which chiefly differs from the larva by having rudimentary wings. The damage the larvæ and pupæ do, then, consists in their sucking the sap from the roots of forest, and occasionally fruit trees.

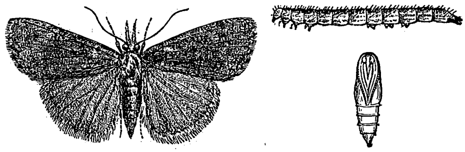
Regarding its appearance, Mr. L. B. Case writes us (June 15) from Richmond, Indiana: "Just now we are having a tremendous quantity of locusts in our forests and adjoining fields, and people are greatly alarmed by them; some say they are Egyptian locusts, etc. This morning they made a noise, in the woods about half a mile east of us, very much like the continuous sound of frogs in the early spring, or just before a storm at evening. It lasted from early in the morning until evening." Mr. V. T. Chambers writes us that it is abounding in the vicinity of Covington, Kentucky, "in common with a large portion of the Western country." He points out some variations in color from those described by Dr. Fitch, from New York, and states that those occurring in Kentucky are smaller than those of which the measurements are given by Dr. Fitch, and states that "these differences indicate that the groups, appearing in different parts of the country at intervals of seventeen years, are of different varieties." A careful comparison of large numbers collected from different broods, and different localities, and different years, would alone give the facts to decide this interesting point.

Regarding the question raised by Mr. Chambers, whether the sting of this insect is poisonous, and which he is inclined to believe to be in part true, we might say that naturalists generally believe it to be harmless. No hemiptera are known to be poisonous, that is, have a poison-gland connected with the sting like that of the bee, and careful dissections by the eminent French entomologist, Lacaze-Duthiers, of three European species of Cicada, have not revealed any poison apparatus at the base of the sting. Another proof that it does not pour poison into the wound made by the ovipositor is, that the twig thus pierced and wounded does not swell, as in the case of plants wounded by Gall-flies which secrete an irritating poison, giving rise to tumors of various shapes. Many insects sting without poisoning the wound; the bite of the musquito, black-fly, flea, the bed-bug, and other hemipterous insects, are simple punctured wounds, and to a perfectly healthy constitution they are not poisonous, though they may grievously afflict many persons, causing the adjacent parts to swell, and in some weak constitutions induce severe sickness. Regarding this point, Mr. Chambers writes:

"I have heard — not through the papers — within a few days past of a child, within some twenty miles of this place, dying from the sting of a Cicada, but have not had an opportunity to inquire into the truth of the story, but the following you may rely on. A negro woman in the employment of A. V. Winston, Esq., at Burlington, Boone County, Ky., fifteen miles distant from here, went barefooted into his garden a few days since, and while there was stung or

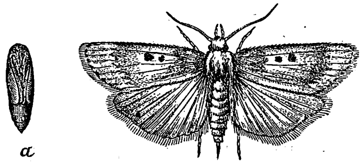
> bitten in the foot by a Cicada. The foot immediately swelled to huge proportions, but by various applications the inflammation was allayed, and the woman recovered. Mr. Winston, who relates this, stands as high for intelligence and veracity as any one in this vicinity. I thought on first hearing the story, that probably the sting was by some other insect, but Mr. Winston says that he saw the Cicada. But perhaps this proves that the sting is *not* fatal; that depends on the subject. Some persons suffer terribly from the bite of a musquito, while others scarcely feel them. The cuticle of a negro's foot is nearly impenetrable, and perhaps the sting would have been more dangerous in a more tender part."

Fig. 1.



We figure the Hop-vine Moth and the larva (Fig. 1) and pupa, which abound on hops the last of summer. Also, the *Ilythia colonella* (Fig. 2; *a*, pupa), known in England to be a parasite of the Humble-bee. We have frequently met with it here, though not in Humble-bees' nests. The larvæ feed directly upon the young bees, according to Curtis (Farm Insects). The Spindle-worm Moth, *Gortyna zeæ*, whose caterpillar lives in the stalks of Indian corn, and also in dahlias, flies this month. The withering of the leaves when the corn is young, shows the presence of this pest. The beetles of various cylindrical Bark-borers and Blight-beetles (*Tomicus* and *Scolytus*) appear again this month. During this month the Tree-cricket, *Œcanthus niveus* (Fig. 3), lays its eggs in the branches of peach trees. It will also eat tobacco leaves.

Fig. 2.



We figure (Fig. 4) the moth of *Eudalimia subsignaria*, the larva of which is so injurious to shade trees in New York City. It is a widely diffused species, occurring probably throughout the Northern States. We have taken the moth in Northern Maine. We have received from Mr. W. V. Andrews the supposed larvæ of this moth. They are "loopers," namely, walk with a looping gait, as if measuring off the ground they walk over, whence the name "Geometers," more usually applied to them. They are rather stout, brown, and roughened like a twig of the tree they inhabit, with an unusually large rust-red head, and red prop-legs, while the tip of the body is also red. They are little over an inch long. The supposed "Tortrix" larva, referred to in the Calendar for June, is the Gartered

Fig. 3.

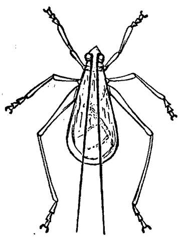
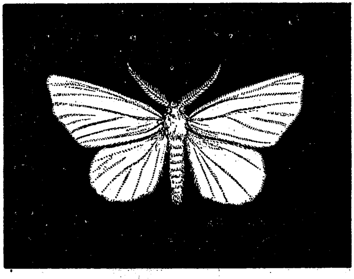


Fig. 4.



Plume-moth, *Pterophorus periscelidactylus* of Fitch. We were able to raise the moth from larvæ forwarded by Mr. Read. It appeared in one rearing-box June 26. Its habits are very fully described in the first report of Dr. Fitch on the Injurious Insects of New York.

A word more about the Seventeen-year Cicada. Professor R. Orton writes us from Yellow Springs, Ohio, that this insect has done great damage to the apple, peach, and quince trees, and are shortening the fruit crop very materially. By boring into twigs bearing fruit, the branches break and the fruit goes with them. "Many orchards have lost full two years' growth. Though the plum and cherry trees seemed exempt, they attacked the grape, blackberry, raspberry, elm (white and slippery), maple, white ash, willow, catalpa, honey-locust, and wild rose. We have traces of the Cicada this year from Columbus, Ohio, to St. Louis. Washington and Philadelphia have also had a visitation."—A. S. P.

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

LONG ISLAND HISTORICAL SOCIETY, *Natural History Section. Brooklyn, N. Y.*—At a May meeting, a paper was read by Mr. E. Lewis, jr., on "Evidences of Coast-depression along the Shores of Long Island." It is found, by a series of observations made by Mr. Lewis and others, that large areas, known to have been formerly meadow swamp and woodland, are now permanently beneath the water. Some important changes have taken place along the flat shores within historic times. Remains of swamps with fresh-water vegetation are abundant, from four to nine feet below the surface of the meadows, along the southern side of the island, in the bay which intervenes between the beach and the uplands. In one instance roots of swamp vegetation, fast where they grew, were found quite near the beach, under ten feet depth of water. Stumps of the White, or Swamp-cedar (*Cupressus thyoides*), occur in great numbers, fast in the peaty meadows and salt marshes, which are now permanently covered with salt-water. Near Fort Hamilton are the Dyker Meadows, so-called, which extend inland nearly three-fourths of a mile. The upper end is a fresh-water swamp, with cedar and other trees. Where the tides overflow the trees are dead, many of them still standing. Lower down, or nearer the bay, stumps only remain; these abound in the meadows, and are in a good state of preservation. These meadows extend beneath the bay; and one-fourth of a mile from the shore-line, stumps of the cedar, from two feet to three feet in diameter, have been found. It is probably continuous with similar meadows on the opposite side of the river.

A general invasion of the beach along the coast has occurred within historic time; it having been thrown inland, submerging the meadows. From this cause large masses of old meadows are often torn up by waves